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| CALIFORNIA CONTENT STANDARDS: GRADE 6 | **# of**  **Items** | **%** |
| **Standard Set 3.0 Students investigate geometric patterns and describe them algebraically:** |  |  |
| 3.1 Use variables in expressions describing geometric quantities (e.g., P = 2*w* + 2*l*, A = ½ *bh*, C = π*d* – the formulas for the perimeter of a rectangle, the area of a triangle, and the circumference of a circle, respectively). | **1** |
| 3.2 Express in symbolic form simple relationships arising from geometry. | **1** |
| **Measurement and Geometry** | **10** | **15%** |
| **Standard Set 1.0 Students deepen their understanding of the measurement of plane and solid shapes and use this understanding to solve problems:** |  |  |
| 1.1\* Understand the concept of a constant such as π; know the formulas for the circumference and area of a circle. | **3** |
| 1.2 Know common estimates of π (3.14; 22/7) and use these values to estimate and calculate the circumference and the area of circles; compare with actual measurements. | **1/2\*\*** |
| 1.3 Know and use the formulas for the volume of triangular prisms and cylinders (area of base × height; compare these formulas and explain the similarity between them and the formula for the volume of a rectangular solid. | **1/2\*\*** |
| **Standard Set 2.0 Students identify and describe the properties of two-dimensional figures:** |  |
| 2.1 Identify angles as vertical, adjacent, complementary, or supplementary and provide descriptions of these terms. | **1** |
| 2.2\* Use the properties of complementary and supplementary angles and the sum of the angles of a triangle to solve problems involving an unknown angle. | **4** |
| 2.3 Draw quadrilaterals and triangles from given information about them (e.g., a quadrilateral having equal sides but no right angles, a right isosceles triangle). | **1** |
| **Statistics, Data Analysis, and Probability** | **11** | **17%** |
| **Standard Set 1.0 Students compute and analyze statistical measurements for data sets:** |  |  |
| 1.1 Compute the range, mean, median, and mode of data sets. | **1/3\*\*** |
| 1.2 Understand how additional data added to data sets may affect these computations of measures of central tendency. | **1/3\*\*** |
| CALIFORNIA CONTENT STANDARDS: GRADE 6 | **# of**  **Items** | **%** |
| 1.3 Understand how the inclusion or exclusion of outliers affect measures of central tendency. | **1/3\*\*** |  |
| 1.4 Know why a specific measure of central tendency (mean, median, mode) provides the most useful information in a given context. | **NA\*\*\*** |
| **Standard Set 2.0 Students use data samples of a population and describe the characteristics and limitations of the samples:** |  |
| 2.1 Compare different samples of a population with the data from the entire population and identify a situation in which it makes sense to use a sample. | NA\*\*\* |
| 2.2\* Identify different ways of selecting a sample (e.g., convenience sampling, responses to a survey, random sampling) and which method makes a sample more representative for a population. | **3** |
| 2.3\* Analyze data displays and explain why the way in which the question was asked might have influenced the results obtained and why the way in which the results were displayed might have influenced the conclusions reached. | **NA\*\*\*** |
| 2.4\* Identify data that represent sampling errors and explain why the sample (and the display) might be biased. | **NA\*\*\*** |
| 2.5\* Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims. | **1/3\*\*** |
| **Standard Set 3.0 Students determine theoretical and experimental probabilities and use these to make predictions about events:** |  |
| 3.1\* Represent all possible outcomes for compound events in an organized way (e.g., tables, grids, tree diagrams) and express the theoretical probability of each outcome. | **3** |
| 3.2 Use data to estimate the probability of future events (e.g., batting averages or number of accidents per mile driven). | **NA\*\*\*** |
| 3.3\* Represent probabilities as ratios, proportions, decimals between 0 and 1, and percentages between 0 and 100 and verify that the probabilities computed are reasonable; know that if *P* is the probability of an event, 1 - *P* is the probability of an event not occurring. | **3** |